

The Co-Existence of Rheumatoid Arthritis and Systemic Lupus Erythematosus Biomarkers: Is It Rhupus?

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Abstract:

Background: Rhupus is a rare clinical condition where rheumatoid arthritis (RA) and systemic lupus erythematosus (SLE) overlap and is characterized by the presence of erosive arthritis with symptoms and signs of SLE. This study aims to investigate the prevalence of anti-CCP antibodies in SLE patients from *CHU BLIDA (Immunology unit)* and its association with anti-DNA and Anti Sm, in order to make a diagnosis of rhupus among our patients.

Methods: Our retrospective study included 96 patients fulfilling the American College of Rheumatology (ACR) classification criteria for lupus. anti-CCP antibodies, anti-Sm were analyzed by ELISA, anti-DNA antibodies were determined by both IFI on *Crithidia luciliae* substrate and ELISA. The FR by Laser Nephelometry. Inclusion criteria are the presence of at least one immunological marker of LES with anti-CCP. The sex ratio F / H is equal to 13/1, where the average age is 37 years.

Results: Anti-CCP was found in 14 patients (14.6%), 56.25% and 39.59% had positive anti-DNA and antiSm respectively; rheumatoid factors (RF) were positive in 27.08% of cases; anti-CCP / FR combination was found in 7.3% of cases. Besides, the combination of anti-CCP and anti-DNA was found in 12.5%. These two autoantibodies were simultaneously absent in 49.92% of cases. Arthritis was found in 80 patients. Our results concerning the prevalence of immunological and clinical markers of RA such as anti-CCP, RF and arthritis in our lupus patients corroborate with those of the literature.

Conclusion: Based on the presence of shared clinical features of RA and SLE along with the presence of anti-DNA and anti-CCP antibodies in our patients, our findings strongly support the contention that rhupus is a true overlap between RA and SLE. Despite being a rare entity, it is important to know the clinical and humoral elements that allow its early diagnosis, making it easier to start treatment in a timely manner and reduce its possible complications.

Keywords: Rhupus, Anti CCP, FR, Anti-DNA, Anti-Sm, PR, LES.

7. Declaration of conflicts

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8. Authors' Biography

No biography

9. References

No references